

ABSTRACT OF THE DISCLOSURE:

Silicon-germanium-based compositions comprising silicon, germanium, and carbon (i.e., Si-Ge-C), methods for growing Si-Ge-C epitaxial layer(s) on a substrate, etchants especially suitable for Si-Ge-C etch-stops, and novel methods of use for Si-Ge-C compositions are provided. In particular, the invention relates to Si-Ge-C compositions, especially for use as etch-stops and related processes and etchants useful for microelectronic and nanotechnology fabrication.

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